What research in mathematics education has taught us about identity
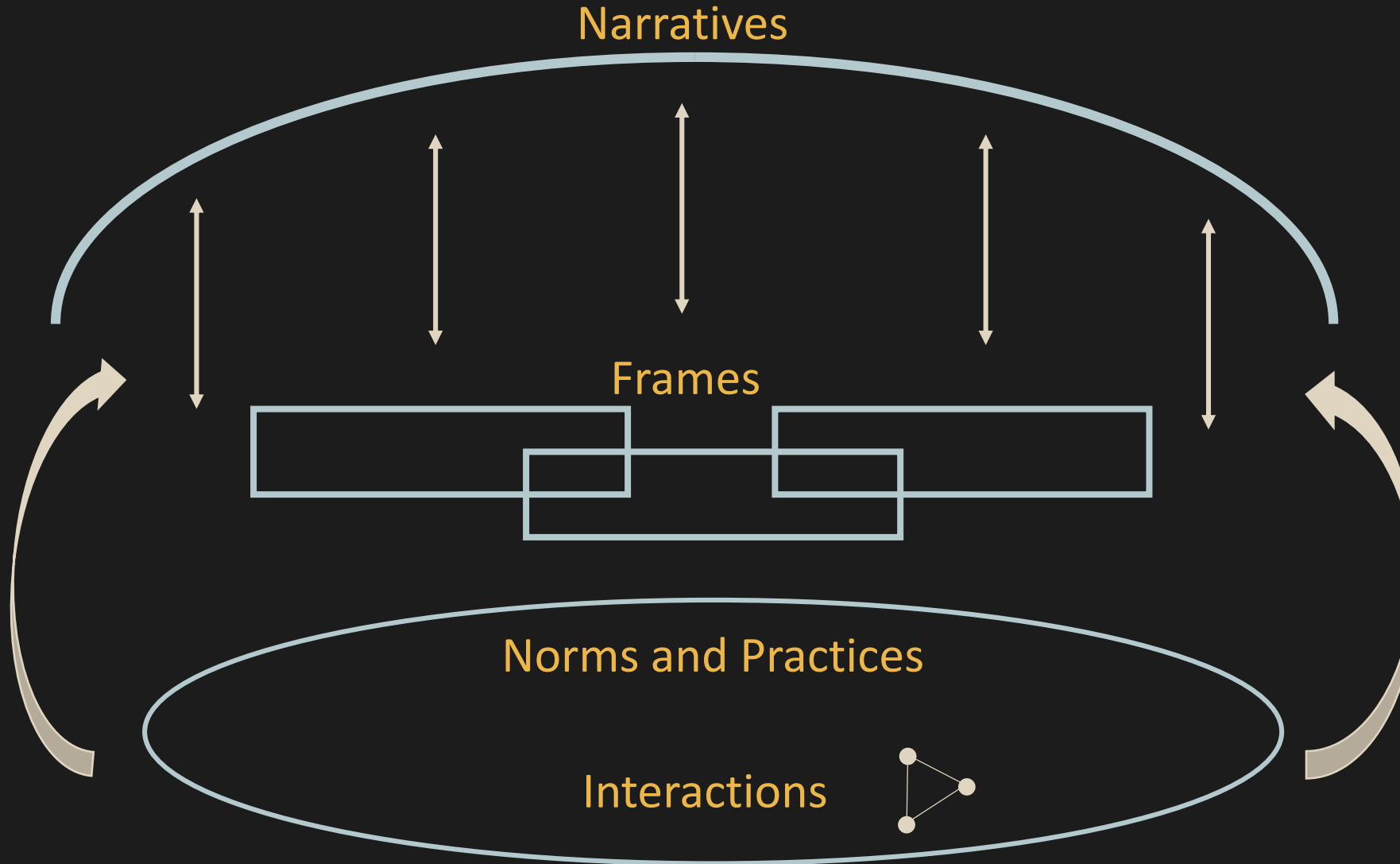
- As a society, we perpetrate a myth that only certain kinds of people can do math.
- This work primarily gets done in school
- This means that we systematically make space in school for only some kinds of reasoning, valuing only some kinds of people, practices, and ways of thinking.

Classrooms have cultures and practices that communicate a lot of information, even tacitly.

- School math, as we teach it, is not creative, requires memorization, is competitive, and only for a few people.
- One right answer
- A set of procedures that are memorized and practiced
- Problems that can be solved quickly
- Emphasizing answers ONLY over strategies
- Insisting on "one right way" or "the best method"

Model of Identity

Narratives

Frames

Norms and Practices

Interactions

Narratives that challenge stereotypes about who is successful

Frames that define "smartness" in terms of thoughtfulness, creativity

Norms and Practices that:
Allow students to exercise agency in finding solutions
Do not emphasize comparison, speed

Gresalfi & Hand, 2019

How would you describe the programming camp to someone else?

fun!

fun and a good way to start coding

I would say it was pretty fun

That is was fun and you got to make interesting things

I would say it is fun.

It is fun

It's an opportunity to explore ideas and learn. It's fun and challenging and interesting because there's a lot of language for the computer.

FUN --> You would think your just sitting in front of a computer but your not! It's very interactive and fun!

If you enjoy working with computers you will enjoy this camp

That it's a fun camp for people with an interest in coding. Also that it's a good way to fuel that interest

If I described Art and Coding camp to someone else I would describe it as interesting and fun

I would say it is a fun way to learn to edit image with code

It's fun, cool, amazing, and it has funny people

It is fun but hard

I would say interesting because it was cool to learn how to code to do cool things with pictures

Art and coding camp helped us do a lot within a week

I would say that it is basically use things to make patches and turtles do things in the picture to make it look cool

I would say that art & coding camp is fun and creative. But a little challenging. Also the art & transitions are detailed

Student reflections about Computer Programming

If coding was offered as a class at your school, would you want to take it?
(No=0, Yes=1)
Mean = 0.857

Computer Programming is Interesting
(1= Strongly Disagree, 5 = Strongly Agree)
Mean = 4.64

Computer Programming is Fun
(1= Strongly Disagree, 5 = Strongly Agree)
Mean = 4.464285714

Computer Programming is Boring
(1= Strongly Disagree, 5 = Strongly Agree)
Mean = 1.61